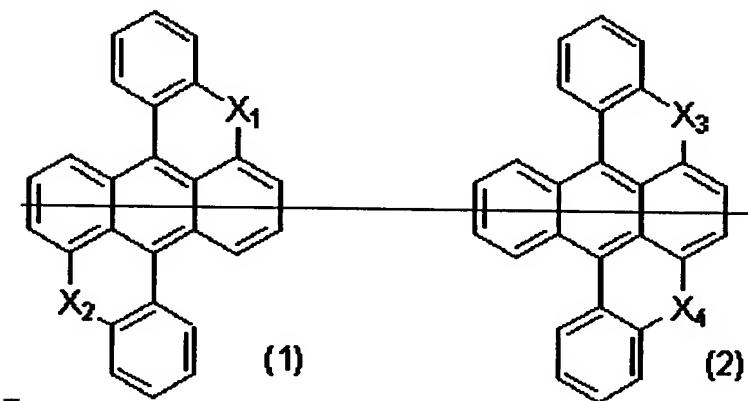


Amendment to the claims

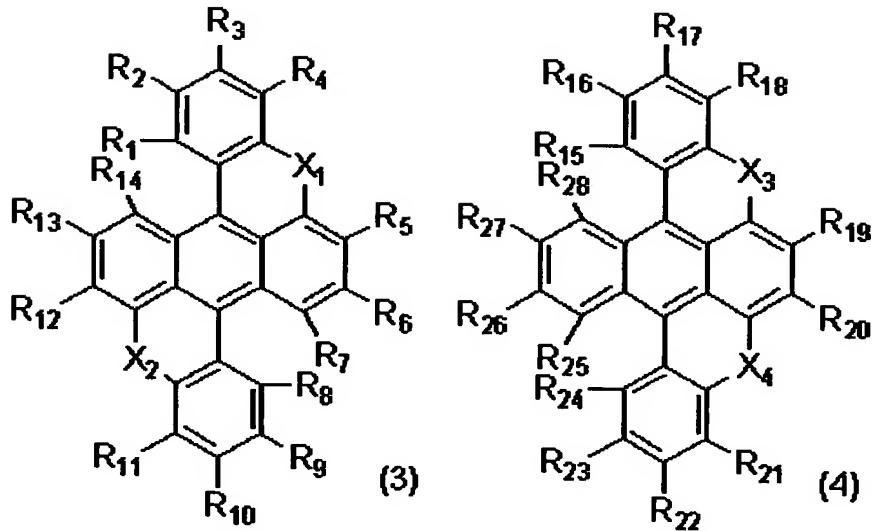
This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of claims

1. (Currently amended) A light-emitting device emitting light by electric energy having one or more layers of organic thin films formed between an anode and a cathode, characterized in that the organic thin film contains a compound ~~having the basic skeleton represented by the following General Formula (1) or (2):~~



(wherein, X_1 , X_2 , X_3 and X_4 each independently represent an oxygen, sulfur, selenium, or tellurium atom, or NR_{29} ; and R_{29} represents a hydrogen atom, an aliphatic hydrocarbon residue which may be substituted, or an aromatic residue which may be substituted.) represented by the following General Formula (3) or (4):



(wherein, X₁, X₂, X₃ and X₄ each independently represent an oxygen, sulfur, selenium, or tellurium atom, or NR₂₉; and R₂₉ represents a hydrogen atom, an alkyl group having 1 to 6 carbon atoms which may be substituted with at least one group selected from the group consisting of a halogen atom, phenyl, biphenyl, naphthyl, pyridino, thienyl, and furyl groups, and phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl groups which may be substituted with at least one group selected from the group consisting of an alkyl group having 1 to 6 carbon atoms, a halogen atom, and phenyl, biphenyl, naphthyl, pyridino, thienyl, and furyl groups; R₁ to R₂₈ each independently represent a hydrogen atom; a halogen atom; an alkyl group having 1 to 6 carbon atoms which may be substituted with at least one group selected from the group consisting of a halogen atom, phenyl, biphenyl, naphthyl, pyridino, thienyl, and furyl groups;

and a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group which may be substituted with at least one group selected from the group consisting of an alkyl group having 1 to 6 carbon atoms, a halogen atom, and phenyl, biphenyl, naphthyl, pyridino, thienyl, and furyl groups, and the neighboring groups among the substituent groups represented by R₁ to R₁₄ and R₂₉ in Formula (3) and R₁₅ to R₂₉ in Formula (4) may bind to each other to form a benzene or naphthalene ring).

2. (Cancelled)

3. (Currently amended) The light-emitting device according to Claim 2 or 1, wherein X₁, X₂, X₃ and X₄ in Formula (3) or (4) each represent an oxygen or sulfur atom.

4. (Currently amended) The light-emitting device according to Claim 2 ~~or~~ 3 1, wherein the neighboring groups among R₁ to R₄, R₈ to R₁₁, R₁₅ to R₁₈, and R₂₁ to R₂₄ in Formula (3) or (4) bind to each other, forming a benzene or naphthalene ring(s) which may be substituted.

5. (Currently amended) The light-emitting device according to ~~any one of Claims 2 to 4~~ claim 1, wherein R₁ and R₂ and/or R₃ and R₄ and/or R₈ and R₉ and/or R₁₀ and R₁₁ and/or R₁₅ and R₁₆ and/or R₁₇ and R₁₈ and/or R₂₁ and R₂₂ and/or R₂₃ and R₂₄ in Formula (3) or (4) bind to each other, forming a benzene

or naphthalene ring ~~an aromatic ring(s) which may be substituted.~~

6. (Currently amended) The light-emitting device according to ~~any one of Claims 2 to 5~~ claim 1, wherein the substituent groups represented by R₁ to R₂₉ in Formula (3) or (4) each are a ~~substituted or unsubstituted aliphatic hydrocarbon residue or a substituted or unsubstituted aromatic residue~~ an alkyl group having 1 to 6 carbon atoms which may be substituted with at least one group selected from the group consisting of a halogen atom, phenyl, biphenyl, naphthyl, pyridino, thienyl, and furyl groups; or phenyl or naphthyl group which may be substituted with at least one group selected from the group consisting of an alkyl group having 1 to 6 carbon atoms, a halogen atom, and phenyl, biphenyl, naphthyl, pyridino, thienyl, and furyl groups.

7. (Currently amended) The light-emitting device according to ~~any one of Claims 2 to 6~~ claim 1, wherein the substituent groups represented by R₁ to R₂₉ R₂₈ in Formulae (3) and (4) each are a halogen atom; a phenyl or naphthyl group ~~an aromatic residue having a halogen atom;~~ or an a C1-C6 alkyl group ~~aliphatic hydrocarbon residue having a halogen atom and the substituent groups represented by R₂₉ in Formulae (3) and (4) is a phenyl or naphthyl group~~

having a halogen atom; or a C1-C6 alkyl group having a halogen atom.

8. (Currently amended) The light-emitting device according to Claim 7 1, wherein the halogen atom is a bromine or fluorine atom.

9. (Cancelled)

10. (Currently amended) The light-emitting device according to any one of Claims 2 to 9 1 or 3 to 8 wherein the organic thin film has a laminate structure at least containing a positive hole-transporting layer and a light-emitting layer.

11. (Currently amended) The light-emitting device according to any one of Claims 4 to 10 1 or 3 to 8, wherein an anode, a positive hole-transporting layer, a light-emitting layer, an electron-transporting layer, and a cathode are laminated in that order.

12. (Currently amended) The light-emitting device according to any one of Claims 4 to 11 1 or 3 to 8, wherein at least a positive hole-injecting layer, a positive hole-transporting layer, and an electron-transporting layer are formed between the anode and the cathode.

13. (Currently amended) The light-emitting device according to any one of Claims ~~1 to 12~~ 1 or 3 to 8, wherein the compound ~~having the basic skeleton~~ represented by Formula (3) or (4) ~~(1) or (2)~~ is contained as the host material of the light-emitting material in the light-emitting layer.

14. (Currently amended) The light-emitting device according to any one of Claims ~~1 to 13~~ 1 or 3 to 8, wherein the compound ~~having the basic skeleton~~ represented by Formula (3) or (4) ~~(1) or (2)~~ is contained as the dopant for the light-emitting layer.

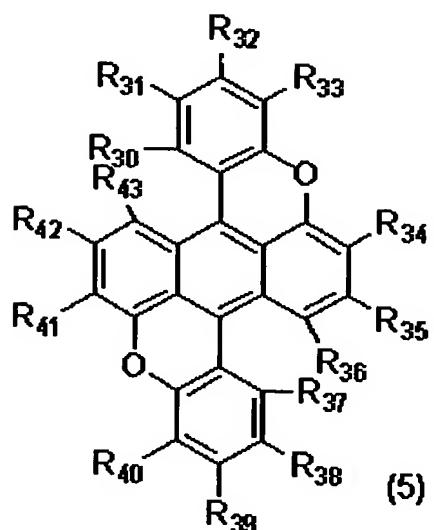
15. (Currently amended) The light-emitting device according to any one of Claims ~~1 to 14~~ 1 or 3 to 8, wherein a white light is emitted by combined use of a blue to green light-emitting material.

16. (Currently amended) The light-emitting device according to any one of Claims ~~1 to 15~~ 1 or 3 to 8, wherein one of organic thin films is a positive hole-injecting layer and the positive hole-injecting layer according to claim 12 contains a compound having the basic skeleton represented by the Formula (3) or (4) ~~(1) or (2)~~.

17. (Currently amended) The light-emitting device according to any one of Claims ~~1 to 16~~ 1 or 3 to 8, wherein the

light-emitting device is a device for a display in a matrix mode and/or a segment mode.

18. (Currently amended) A condensed polycyclic compound represented by Formula (5):



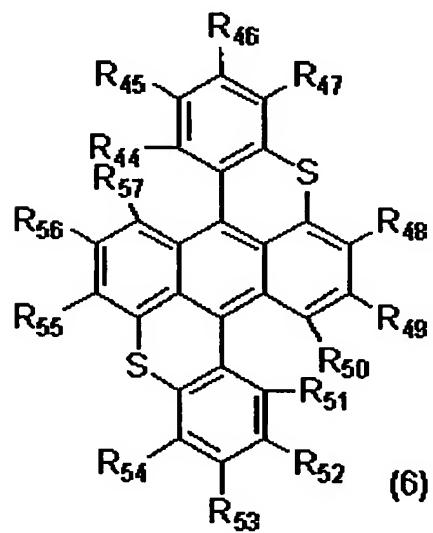
(wherein, R₃₀ to R₄₃ each independently represent a hydrogen atom; a halogen atom; an C1-C6 alkyl group; which may be substituted with an aromatic residue, an aromatic oxy group, an alkyloxy group, or a halogen atom, or, a phenyl or naphthyl group which may be substituted with at least one group selected from the group consisting of an alkyl group having 1 to 6 carbon atoms, a halogen atom, a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group an aromatic residue which may be substituted with an aromatic residue, an aromatic oxy group, an alkyl group, an alkyloxy group, or a halogen atom; at least one of R₃₀ to R₄₃ is a

halogen atom or a phenyl or naphthyl group which may be substituted with at least one group selected from the group consisting of an alkyl group having 1 to 6 carbon atoms, a halogen atom, a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group; two to four of R₃₁, R₃₃, R₃₈, and R₄₀ are present as substituent groups mentioned above an aromatic residue which may be substituted with an aromatic residue, an aromatic oxy group, an alkyl group, an alkyleoxy group or a halogen atom; and the neighboring groups among R₃₀ to R₄₃ may bind to each other forming benzene or naphthalene ring(s) a ring(s) which may be substituted, however excluding the case where R₃₀ and R₃₁ and R₃₇ and R₃₈, or R₃₂ and R₃₃ and R₃₉ and R₄₀, bind to each other forming unsubstituted benzene rings and all of R₃₀ to R₄₃ that do not form a ring are a hydrogen atom.).

19. (Currently amended) The condensed polycyclic compound according to Claim 18, wherein two or more of R₃₀ to R₄₃ each are a halogen atom or a phenyl or naphthyl group which may be substituted with at least one group selected from the group consisting of an alkyl group having 1 to 6 carbon atoms, a halogen atom, a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group an aromatic residue which may be substituted with an aromatic residue, an aromatic oxy group, an alkyl group, an alkyleoxy group or a halogen atom.

20. (Currently amended) The condensed polycyclic compound according to Claim 18 or 19, wherein the substituent groups R_{34} , R_{35} , R_{36} , R_{41} , R_{42} , and R_{43} on the compound represented by Formula (5) each are a hydrogen atom; R_{30} and R_{37} each represent a hydrogen atom, a halogen atom, or a C1 to C4 alkyl group; R_{31} , R_{33} , R_{38} , and R_{40} each represent a hydrogen atom, a halogen atom, ~~an aromatic residue~~ a phenyl, naphthyl, ~~a thiaryl group~~, or a C1 to C4 alkyl group; and R_{32} and R_{39} each represent a hydrogen atom, a halogen atom, or a C1 to C4 alkyl group.

21. (Currently amended) A condensed polycyclic compound represented by Formula (6):



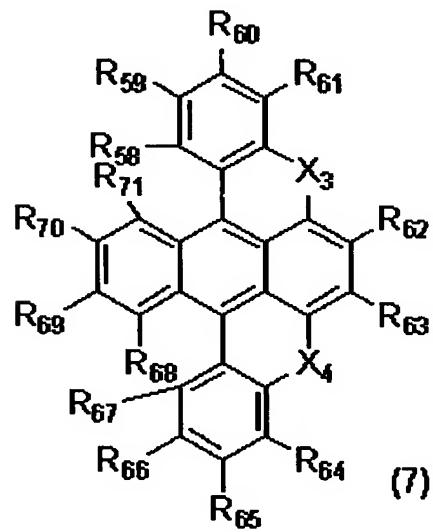
(wherein, R_{44} to R_{57} each independently represent a hydrogen atom, a halogen atom, ~~an~~ a C1-C6 alkyl group ~~which may be substituted with an aromatic residue, an aromatic oxy~~

group, an alkyloxy group or a halogen atom, or an aromatic residue a phenyl or naphthyl group which may be substituted with an aromatic residue a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group, an aromatic oxy group, an a C1-C6 alkyl group, an alkyloxy group, or a halogen atom; at least one of R₄₄ to R₅₇ is a halogen atom, an a C1-C6 alkyl group which may be substituted with an aromatic residue, an aromatic oxy group, an alkyloxy group or a halogen atom, or an aromatic residue a phenyl or naphthyl group which may be substituted with an aromatic residue a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group, an aromatic oxy group, an a C1-C6 alkyl group, an alkyloxy group, or a halogen atom; two to four of R₄₅, R₄₇, R₅₂, and R₅₄ are present as substituent groups mentioned above and the neighboring groups among R₄₄ to R₅₇ may bind to each other forming a ring(s) which may be substituted benzene or naphthalene ring(s)).

22. (Currently amended) The condensed polycyclic compound according to Claim 21, wherein two or more of R₄₄ to R₅₇ each are a halogen atom, an a C1-C6 alkyl group which may be substituted with an aromatic residue, an aromatic oxy group, an alkyloxy group or a halogen atom, or an aromatic residue a phenyl or naphthyl group which may be substituted with an aromatic residue a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group, an aromatic oxy group, a C1-C6 alkyl group, an alkylene group, or a halogen atom.

23. (Currently amended) The condensed polycyclic compound according to Claim 21 or 22, wherein the substituent groups R₄₈, R₄₉, R₅₀, R₅₅, R₅₆, and R₅₇ of the compound represented by Formula (6) each represent a hydrogen atom; R₄₄ and R₅₁ each represent a hydrogen atom, a halogen atom, or a C1 to C4 alkyl group; R₄₅, R₄₇, R₅₂, and R₅₄ each represent a hydrogen atom, a halogen atom, an aromatic residue a phenyl or naphthyl group, a thiienyl group, or a C1 to C4 alkyl group; and R₄₆ and R₅₃ each represent a hydrogen atom, a halogen atom, or a C1 to C4 alkyl group.

24. (Currently amended) A condensed polycyclic compound represented by the following General Formula (7):

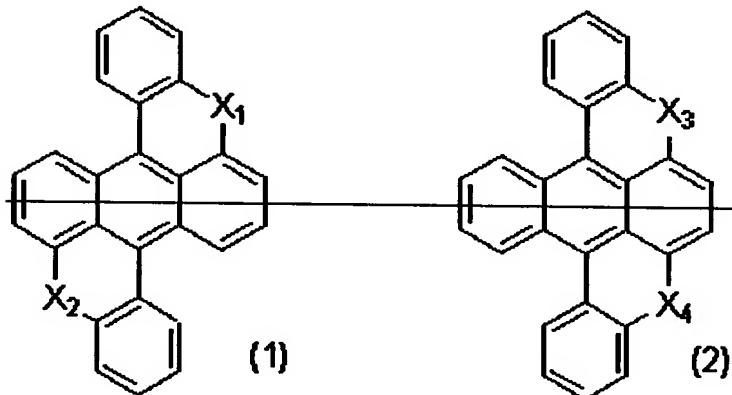


(wherein, X₃ and X₄ each independently represent an oxygen, sulfur, selenium, or tellurium atom, or NR₇₂; R₇₂ represents

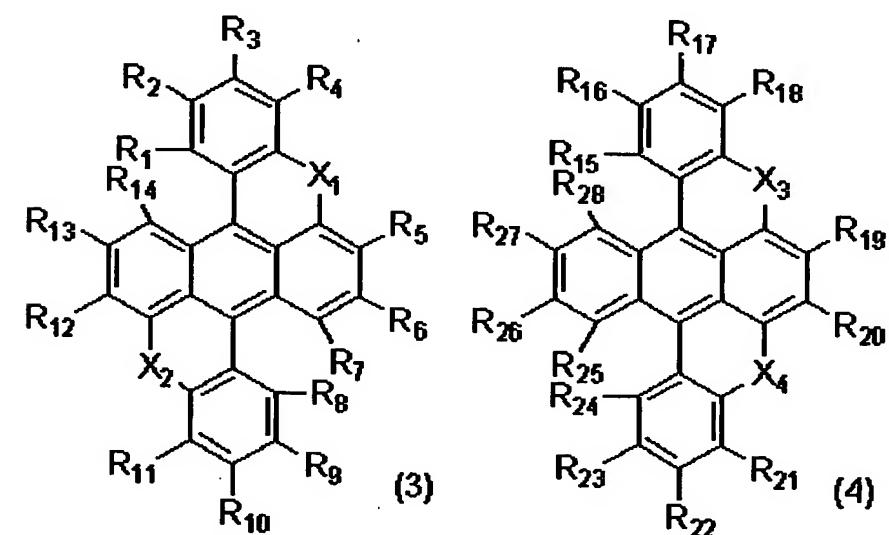
a hydrogen atom, or an aliphatic hydrocarbon a C1-C6 alkyl group, or aromatic residue a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group which may be substituted with an a C1-C6 alkyl group, an alkoxy group, an aromatic residue a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group, an aromatic oxy group, or a halogen atom; R₅₈ to R₇₁ each represent a hydrogen atom, a halogen atom, an a C1-C6 alkyl group which may be substituted with an aromatic residue a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group, an aromatic oxy group, an alkoxy group or a halogen atom, an aromatic residue a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group which may be substituted with an aromatic residue a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group, or an aromatic oxy group, an alkyl group, an alkoxy group or a halogen atom; at least one of R₅₈ to R₇₁ represents a halogen atom, an a C1-C6 alkyl group which may be substituted with an aromatic residue a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group, an aromatic oxy group, an alkoxy group or a halogen atom, or an aromatic residue a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group which may be substituted with an aromatic residue a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group, an aromatic oxy group, an a C1-C6 alkyl group, an alkoxy group or a halogen atom; two to four of R₅₉, R₆₁, R₆₄, and R₆₆ are present as substituent groups mentioned above and the neighboring groups among the substituent groups R₅₈ to R₇₂

may bind to each other forming ~~a ring(s) benzene or naphthalene ring(s) which may be substituted.~~).

25. (Currently amended) A method ~~for~~ of producing a condensed polycyclic compound ~~having the basic skeleton represented by the following General Formulae (1) and (2):~~

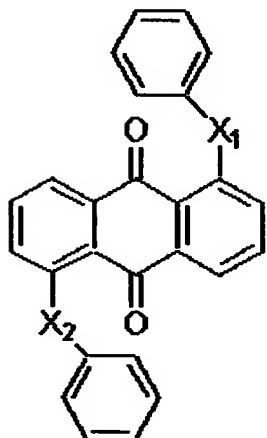


represented by the following General Formula (3) or (4):

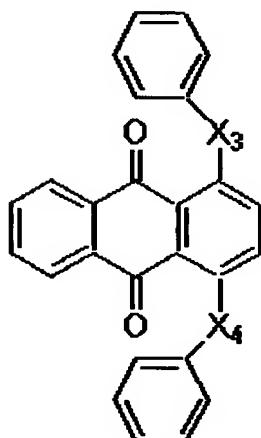


(wherein, X_1 , X_2 , X_3 and X_4 each independently represent an oxygen, sulfur, selenium, or tellurium atom, or NR_{29} ; and R_{29} represents a hydrogen atom, an alkyl group having 1 to 6 carbon atoms which may be substituted with at least one group selected from the group consisting of a halogen atom, phenyl, biphenyl, naphthyl, pyridino, thienyl, and furyl groups, and phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl groups which may be substituted with at least one group selected from the group consisting of an alkyl groups having 1 to 6 carbon atoms, a halogen atom, and phenyl, biphenyl, naphthyl, pyridino, thienyl, and furyl groups; R_1 to R_{28} each independently represent a hydrogen atom; a halogen atom; an alkyl group having 1 to 6 carbon atoms which may be substituted with at least one group selected from the group consisting of a halogen atom, phenyl, biphenyl, naphthyl, pyridino, thienyl, and furyl groups; and a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group which may be substituted with at least one group selected from the group consisting of an alkyl groups having 1 to 6 carbon atoms, a halogen atom, and phenyl, biphenyl, naphthyl, pyridino, thienyl, and furyl groups, and the neighboring groups among the substituent groups represented by R_1 to R_{14} and R_{29} in Formula (3) and R_{15} to R_{29} in Formula (4) may bind to each other to form a benzene or naphthalene ring)

characterized by ring-closing a compound having the basic skeleton represented by the following General Formulae (8) or and (9):



(8)



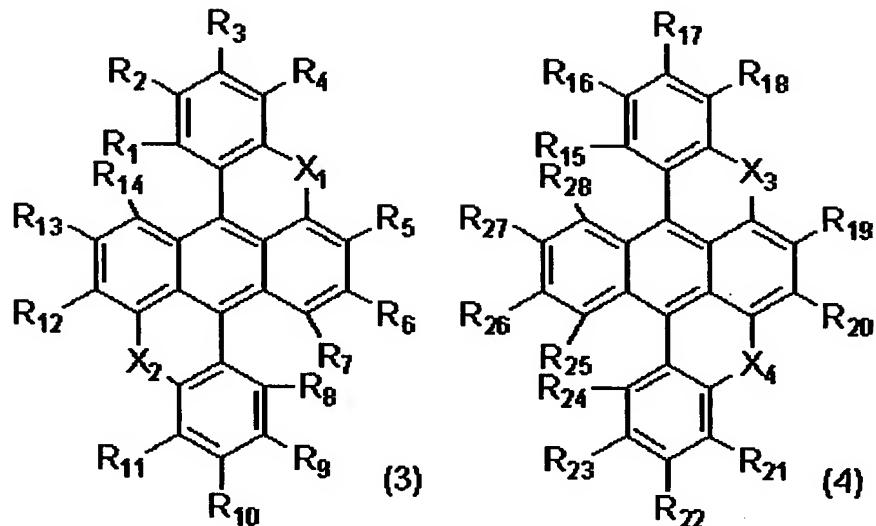
(9)

(wherein, X₁, X₂, X₃ and X₄ are the same as those described above), and further substituents corresponding to R₁ to R₂₈ of the General Formula (3) or (4), in the presence of a sulfonic acid compound.

26. (Original) The method of production according to Claim 25, wherein the sulfonic acid compound is sulfuric acid, an alkylsulfonic acid which may be substituted, or an aromatic sulfonic acid which may be substituted.

27. (New) The method for production of a light-emitting device emitting light by electric energy having one or more layers of organic thin films formed between an anode and a cathode, characterized in that the organic thin film

contains a compound represented by the following General Formula (3) or (4):



(wherein, X_1 , X_2 , X_3 and X_4 each independently represent an oxygen, sulfur, selenium, or tellurium atom, or NR_{29} ; and R_{29} represents a hydrogen atom, an alkyl group having 1 to 6 carbon atoms which may be substituted with at least one group selected from the group consisting of a halogen atom, phenyl, biphenyl, naphthyl, pyridino, thienyl, and furyl groups, and phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl groups which may be substituted with at least one group selected from the group consisting of an alkyl group having 1 to 6 carbon atoms, a halogen atom, and phenyl, biphenyl, naphthyl, pyridino, thienyl, and furyl groups; R_1 to R_{28} each independently represent a hydrogen atom; a halogen atom; an alkyl group having 1 to 6 carbon atoms which may be substituted with at least one group selected from the group consisting of a halogen atom, phenyl,

biphenyl, naphthyl, pyridino, thienyl, and furyl groups; and a phenyl, biphenyl, naphthyl, pyridino, thienyl, or furyl group which may be substituted with at least one group selected from the group consisting of an alkyl group having 1 to 6 carbon atoms, a halogen atom, and phenyl, biphenyl, naphthyl, pyridino, thienyl, and furyl groups, and the neighboring groups among the substituent groups represented by R₁ to R₁₄ and R₂₉ in Formula (3) and R₁₅ to R₂₉ in Formula (4) may bind to each other to form a benzene or naphthalene ring, and the organic thin film is formed by vacuum deposition of said General Formula (3) or (4).